



SOUTH AUSTRALIAN SOCIETY of MODEL and EXPERIMENTAL ENGINEERS INC.

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On the cover of this Bulletin is Father Christmas (aka Rohan Garrard) and Mother Christmas (aka Rachel Brougham) welcoming visitors to the Park.

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EDITORIAL

Communication

Whinging

One of the hazards of becoming a member of the Committee is you become the recipient of a lot of whinging. This is not the same as voicing genuine concern or legitimate reporting of incidents, but offloading about a whole lot of generally irrelevant issues.

The term whinge is a fascinating one so I thought it would be interesting to explore this word.

Definition. A whinge is generally defined as:

“an expression of dissatisfaction in a tiresome manner, generally about something that is not important and where the whinger doesn’t intend to contribute to a solution”.

Synonyms include; bitch, gripe, carp, bleat.

Antonyms are; compliment, praise, endorse, acclaim.

Origin of whinge

The word originates from a Northern variant of Old English hwinsian to whine; related to Old High German winsan, winisan, whence Middle High German winsen

Forms of Whinge

Whinge can take the form of a verb, noun or adjective.

When used as a verb, whinge is an intransitive verb, in that it doesn't have a direct object. Similar to the things being whinged about!

As an adjective (whinger) it adequately describes the person who is whinging.

So, the next time you are tempted to offload a diatribe of complaint, just remember that each Committee member is a volunteer who willingly gives up their time for the Club and ask yourself these questions:

What have I done for the Club lately?

and, How can I help?

Lest you become a whinger.

PRESIDENT'S REPORT.

Ian Thomas

Presidents report

Hello everybody

We had a successful Christmas run and all that turned up had plenty of food. many thanks to all that helped on the day.

We have a few new members join in the last three months so a warm welcome to everyone.

Our building has been progressing slowly as we are reviewing tenders and changing some details so it fits our budget.

Thanks again to the building committee for steering this project.

Our run days have quietened due to weather and one cancelled due to heat many thanks to all participating members who help out.

U33 is finished awaiting a paint Job and the Hunslet is ready to go. The riding car is being refurbished now and will be back soon.

Our fun run in January was down on numbers but those who attended enjoyed the night.

Thanks to Mary and Bryan with the running of the canteen with lots of chips being sold.

Finally, a Big thank you to Max Shuard again our hard-working secretary for a mighty job all the paperwork for the building project.

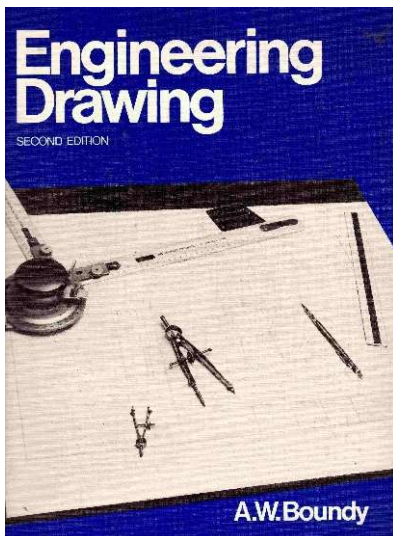
Best regards Ian Thomas. President 2023/2024

IN THE LIBRARY

Max Shuard

The library is open from 7:00 to 7:45 on General Meeting nights. Also, I generally attend the public run days and Wednesday working bees, so if you are looking for something, please just ask.

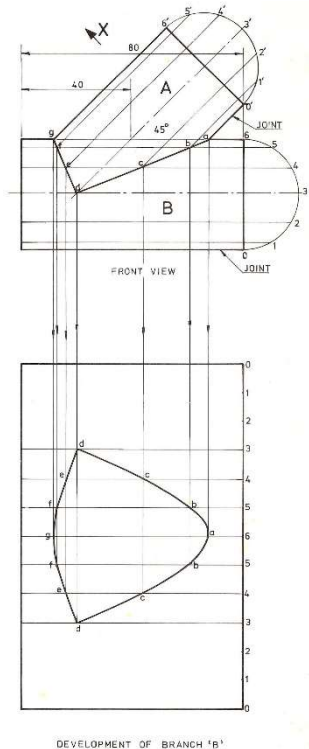
Book of the Month



Engineering Drawing. A. W. Boundy.

If you have ever built anything, you would have spent time poring over drawings. If you have ever designed anything, you would have spent time working out how best to display what is to be built. Drawing these days, with Computer Aided Drafting (CAD), is easy. Or is it?

Various aspects of Geometric, Orthographical and Pictorial drawings are explored. And it finishes with covering the requirements for Working Drawings. This is the real nitty gritty, as working drawings can make or break a project, depending on their quality. Boundy presents well laid out and easy to follow explanations throughout. Thoroughly recommended.



Tool Feature

Vol 64 No. 1



As a LEGO enthusiast, I've brought Tram 361 back to Glenelg – in model form.

This model now has a permanent home at Glenelg's Bay Discovery Centre.

I've been passionate about trams and everything transport since I was three years old – and a Holdfast Bay Community Grant allowed me to bring my vision to life.

The build took about 12 hours to complete, but the whole process took around nine months from the initial idea to the finished product.

I'm thrilled, albeit in a bit of disbelief, to see my creation on public display inside the Bay Discovery Centre. It sits among the interactive display on the first floor of the museum, next to the front façade of H Type Tram 351.

It's pretty cool just to walk in and see it there, in a museum case, knowing that heaps of people are going to come through...it's incredible.

I designed the model on my computer and then went to BrickLink website to source the 1,700 LEGO bricks for the build - some of which came from overseas.

The majority of bricks are in the tram, which includes interior details including seats, and the exterior is almost the exact colour of the old red rattler trams.

It's bit of a rare colour and is really expensive as well.

I think the tram looked even better in real life than I could have imagined.

There were no instructions, so I was just doing it off the computer.

Next on the list could be a model replica of the Africaine, the first passenger ship to anchor in Holdfast Bay in 1836.

Still thinking about that.



ONE IS TO ONE SCALE

Building an Astronomical Telescope.

Bryan Homann

On the 4th of October 1957, a remarkable event happened. In faraway Russia, a basketball sized thing with 4 aerals was rocketed into orbit around our planet. Because it was transmitting a radio signal (beeps), this was able to be listened to by anyone who had a receiver capable of tuning into short wave transmissions. We had a radio that could do that,

and the newspapers would tell us when Sputnik 1 would be passing over head. It was the thing to do to listen to the little beeps, and go outside to see a tiny dot of light move across the sky. It was not to long before other Sputniks, and then NASA satellites began to parade across the sky.

Early the next year, we first year students at Norwood High were treated to a night out at the hallowed ground of the Norwood Oval to have a General Science lesson on astronomy. On another occasion we also got to see (through clouds), a total eclipse of the Sun. Looking back, these events started to generate, for me, an interest in Astronomy. Of course, satellites etc were very much headline news back then, so I suppose it all helped.

We moved house, and at Unley High, there was a good school library. In this, I found books on how to build a telescope. In those days, it usually meant grinding and polishing a mirror, or lens. However, with no assistance from home or school, I had no way of making this happen. In fact, any real interest in optics was squashed by our physics teacher who said that there was no future in working with light, as everything was already known. This was before lasers! He was very wrong. Another example of non-help occurred at a public viewing of a lunar eclipse in the south parklands. I was quite amazed how the large reddish ball just hung in the eyepiece. I asked the telescope owner how this happened and basically got a look that said "ignorant school kid", and absolutely no answer. This demonstrates why we as model engineers should never treat questions with disdain – we might very well just put off a budding ME!

Anyway, my first foray into telescope building was using a cheap magnifying glass lens as the eyepiece, and a redundant spectacle lens from Grandma as the objective. Her lens had quite a long focal length, so it made a good objective lens even if it wasn't very large. The optical tube comprised a main tube rolled up from corrugated cardboard – a very common packing material before we started to fill the oceans with plastic. The eyepiece lens (which I still have – now back in its frame) was mounted in a similar piece of corrugated card board, and able to be slid in and out to achieve focus. At one time a small lens was extracted from Mum's old box camera for use as an eyepiece. This was in my take-things-apart-never-to-go-again days!

The Moon looked great with this piece of technology!

To get more photons into the system (not sure if photons had been discovered then), I wanted to move to a mirror type objective (primary). According to the books, this would entail many hours of rubbing a lead block over a lump of glass while walking in circles, with many different grades of grinding grits, followed by some mysterious measurements. I didn't have access to any of the "technology" or the knowledge.

However, I discovered that a portable shaving mirror that we owned had a concave side, which generated magnification. Ah, problem solved!! Unfortunately, no – the shape of this concave mirror (or in astro terms "figure") was totally useless. Had I known of the existence of the Astronomical Society of South Australia, and actually been able to join it, life after work hours might have been quite different to what actually happened.

So, the next step was to save up my pennies and buy a small telescope. This provided many summer nights of enjoyment in the back yard. It also suffered, but survived, my disassembly inclinations! The sky in Adelaide's inner suburbs was still very dark back then and my eyesight was also still free of spectacles. And I could lay in bed at night and hear the exhaust of shunting RXs at Mile End!

At the end of school, I moved to Whyalla in 1964 as a trainee engineer, and stumbled into the Whyalla Society of Model Engineers. I had always had a fascination for railways and steam engines, so this stumble meant an eventual move back to Adelaide; and SASMEE, finding a lovely wife, Pichi Richi Railway, and a few other turns at the cross roads encountered in life, and astronomy well on the back burner. The advent of the lovely wife, meant me playing Badminton instead of Squash. This led to a social group playing on Friday nights, followed by a get together at each other's homes afterwards.

Comes 1982, and the forthcoming visit by Halley's Comet came up in discussion. It then transpired that one of our little group, (Brian Waters) had been a member of ASSA, and had built his own telescope. Not only that, but he had some of the equipment needed to take the drudge out of making a mirror, and I could borrow it. Ultimately it is not necessary to have a 12inch telescope to look at a sight such as Halley's Comet. The field of view is just too small.

However, astronomy had suddenly found itself back on the front burner! If you, dear reader, are still with us, we can now, finally, get to the title of this article. You might wonder why anyone would want to go to the trouble of building their own telescope. My excuse was, partly because making things is good fun, and partly because ready to go equipment back then

Figure 1: the Lead lap

was pretty expensive. Sounds a bit like model engineering of the time doesn't it!

The first decision was what size should the primary mirror be, and what should its focal length be. Having a machine to help with the grinding meant that the difference in effort between 12", or something smaller was not significant. Back then, a 12inch mirror was close to the pinnacle for amateurs. So, 12inch it was to be.



The next criterium was the focal length. A short focal length required a mirror to be figured to a deeper parabola than a long focal length. This required a lot more work and measurement, and as a result a long focal length was decided. This resulted in an effective aperture of f8. The focal length now being about 2440mm. This was later to introduce issues quite unrelated to the making of the scope itself. A thick slab of Pyrex glass was ordered, and promptly sent back as it arrived with chunks missing account transport issues. While the next slab arrived, I began making foundry patterns. These were needed as part of constructing the equatorial mount. I will get to the mount in detail later on.

The whole project had to be operational by the time of Halley's in early 1986. For the younger members, look out in 2061. It is on its way back, having reached its furthestmost point from the Sun on Dec 9 2023.

Back to grinding a mirror. The first phase is to grind close to the final desired figure. This uses fairly course grits embedded in a lead lap.

This lap is almost the same size as the mirror, and after casting, is hammered to an approximation of the final shape, using blacksmithing type tolerances. Using a round nose chisel, the working surface is carved into a series of blocks separated by grooves.



Figure 2: the "contraption"

Enter the "contraption"! Provided by Brian, this mechanical marvel enabled the mirror to be rotated, and the lead lap to be pushed back and forth across the mirror surface. The travel was adjustable and adjust the mass of the lap. The grit happily settles itself into the lead, and with the addition of a trickle of water (to stop the lead sticking to the mirror and hurling the latter into orbit), grinding can commence. Given that we are going to be working to measurements less than the wave length of visible light, this lot seemed a bit incongruous.

However, Brian insisted that the sloppiness in the mechanism helps eliminate repeatable errors, so off I went. Generally, grinding sessions

were $\frac{1}{2}$ to 1 hour long, with preliminary shape checks. If the shape looked too deep, then the movement of the lead lap could be adjusted to work on the outer area, and vice versa. My records indicate that it took 60 hours or so on the "contraption" to achieve a figure worthy of polishing. In addition, there was the time washing the glass, checking for approx. curvature, logging each operation and thinking about the next step.

The lead lap was now put aside in favour of another piece of glass (flat), which had a thick layer of pitch melted on to it. Similarly adorned with chisel cuts, this was placed on the mirror, with a piece of glad wrap in between. It was then given quite a bit of time to settle to the current shape of the mirror. Much finer polishing powder and water was now used.

MIRROR MANUFACTURE

1982-83

GRINDING

<u>COARSE</u>	60 GRIT	51 h 51m	24 RUNS - PREP & CLEAN = 6h
	180 GRIT	2h	1 " " " " = 15m
	300 GRIT	2h	1 " " " " = 15m
	600 GRIT	2h	1 " " " " = 15m
	1000 GRIT	2h	1 " " " " = 15m

TOTAL GRINDING TIME = 59h 51m + PREP & CLEAN 7h = 66h 51m

POLISHING

CERIUM OXIDE

UP TO FIRST MIRROR TEST OF ANY SERIOUSNESS 26h 45m + 7 RUNS - PREP & CLEAN = 1h 45m

POLISHING & RETESTING 65h 21m + 112 RUNS PRC = 28h
+ 112 TESTS @ 30min = 56h

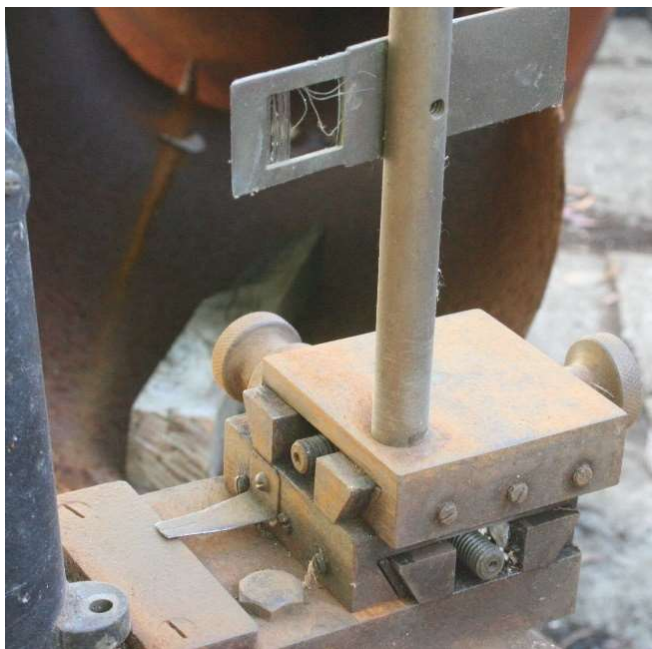
TOTAL POLISHING TIME = 92h 6m + 29h 45m PREP & CLEAN
+ 56h testing.

TOTAL TIME DEVOTED TO MIRROR MANUFACTURE
= 244h 42m

The dual aim was to get a "Mirror finish" and at the same time arrive at the required parabolic shape. Judicious adjustments to the "contraption" were the order of the days after careful measurements. A test known as the Foucault test was used to do the measuring. Invented in 1858 by [Léon Foucault](#). This test and an advanced version by Ronchi were commonly used by amateur telescope builders. There is plenty of stuff about these tests on the internet.

However, here is a short description that I think is adequate.
Foucault testing is commonly used by amateur telescope makers for [figuring primary mirrors](#) in [reflecting telescopes](#). [5][6]

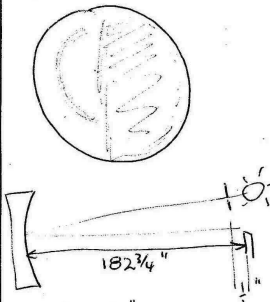
Figure 3: Foucault tester a bit the worse for wear

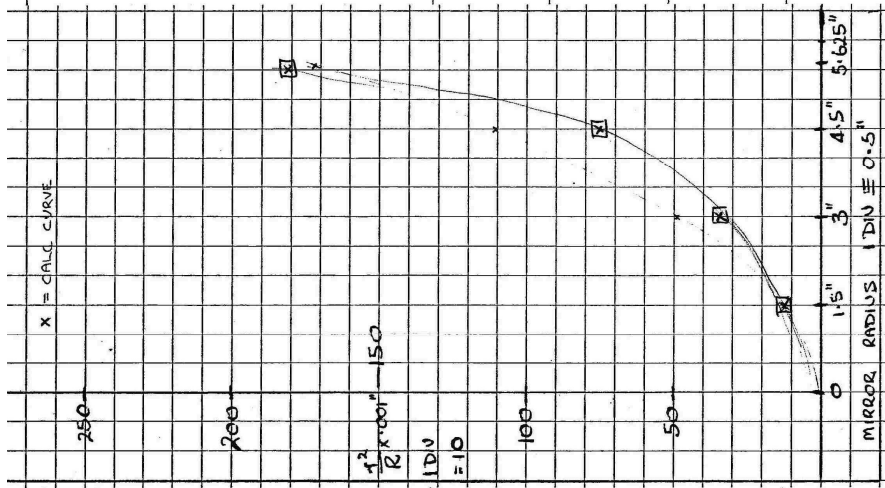


The mirror to be tested is placed vertically in a stand. The Foucault tester is set up at the distance of the mirror's radius of curvature (radius R is twice the

focal length.) with the pinhole to one side of the centre of curvature (a short vertical slit parallel to the knife edge can be used instead of the pinhole). The tester is adjusted so that the returning beam from the pinhole light source is interrupted by the knife edge.

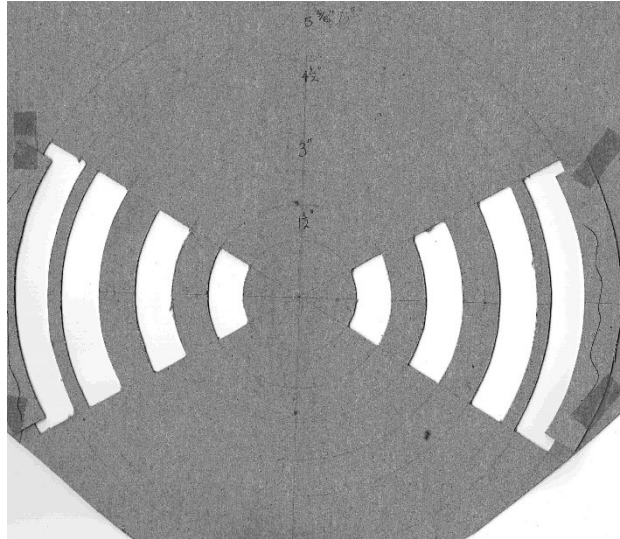
Viewing the mirror from behind the knife edge shows a pattern on the mirror surface. If the mirror surface is part of a perfect sphere, the mirror appears evenly lighted across the entire surface. If the mirror is spherical but with defects such as bumps or depressions, the defects appear greatly magnified in height. If the surface is [paraboloidal](#), the mirror usually looks like a doughnut or lozenge although the exact appearance depends on the exact position of the knife edge.

MIRROR - RAD OF CURVATURE R''		$= 183.5''$			
centre radius of test plot r''		1.5"	3"	4.500	5.000
calculated $\frac{r^2}{R}$ inches		0.0123	0.0490	0.1104	0.165 0.1724
Micrometer reading observed A inches					
 $f = 9\frac{1}{4}''$ $D = 12''$ $f = \frac{9\frac{1}{4}}{12} \Sigma A$ Average reading $= \Sigma A / 10$ variation from A_1 $A_m - A_1 = \frac{r^2}{R}$ obs variation from A_1 plus $(\frac{r^2}{R})_1 = \frac{r^2}{R}$ obs Calculated $\frac{r^2}{R}$ minus observed $\frac{r^2}{R} = \Delta \frac{r^2}{R}$ % deviation $\frac{\Delta \frac{r^2}{R}}{\frac{r^2}{R}} \times 100$	1	.230	.193	.238	.357
	2	.192	.222	.249	.354
	3	.184	.223	.250	.365
	4	.181	.201	.258	.353
	5	.205	.228	.258	.361
	6	.177	.219	.262	.375
	7	.200	.216	.264	.363
	8	.193	.218	.260	.362
	9	.176	.210	.258	.360
	10	.190	.226	.263	.375
		1.93	2.16	2.56	3.625
		.193	.216	.256	.3625
		0	.0226	.0630	.1695
		.012	.0346	.0750	.1815
		0	-.0144	-.0354	+ .0165
		0	-28%	-32%	+10%



It is possible to calculate how closely the mirror surface resembles a perfect parabola by placing a [Couder](#) mask,[\[7\]](#) Everest pin stick (after A. W. Everest)[\[8\]](#) or other zone marker[\[9\]](#) over the mirror. A series of measurements with the tester, finding the radii of curvature of the zones along the optical axis of the mirror (Y-axis). These data are then reduced and graphed against an ideal parabolic curve. Ref https://en.wikipedia.org/wiki/Foucault_knife-edge_test

Figure 4:
*Couder type
mask*



In my case, I used the slit device with vernier scale for the knife edge (c/o Brian), and a version of a Couder mask. This test used very little light, and it was hard on the eyes working out when two opposite shadows were equal in darkness. This setup occupied pride of place in the lounge for quite some time! After doing this polish/test/adjust/polish/test routine for another 90 or so hours, I was so very close to “perfection” However, I thought another hour or so would make it even better. Wrong!

Essentially what I did was to flatten the outer part of the parabola. After around another 100 hours more polishing and etc, I got the figure back to the previous “perfection” shape, and left it there. All up something like 420 hours of devotion.



**Figure 5: the
flattened parabola**



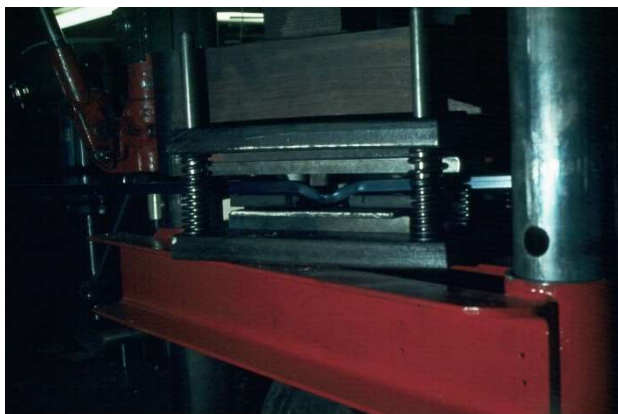
Figure 6: the lovely mirror

The mirror now needed to have a atoms thin film of aluminium on the working surface to enable good light gathering. Fortunately, a SASMEE member who had access to the (very expensive) gear to do this job, and the people to operate it, was able to get this done for me. I made a wooden

travel case for the mirror, and off it went. A little while later I had a call from the security gate house at my work saying that a very large black limousine had delivered a very heavy parcel for me. It was my lovely mirror just waiting for the rest of the telescope.

The optical tube assembly (OTA) was a fabrication in steel tubing covered with a sheet of aluminium. I had to make a special bending jig to form the longitudinal members of this.

Figure 7: Bend jig for OTA longitudinals



Due to the arrangement of the equatorial mount, the Centre of Gravity of the OTA had to be much closer to the mirror than the eyepiece. This was dealt with by getting a heavy piece of 12" plus diameter pipe from the salvage department at work.

Figure 9: The OTA under construction



The Equatorial mount itself is designed such that one axis of rotation points directly to the South Celestial Pole. This means, that apart from errors in that pointing, or atmospheric disturbances, if that axis rotates at the same speed as the apparent difference between earth's rotation and the object in view,

then that object will stay in view and not appear to rotate, without any further adjustment. In the current computer age, this is not necessary, as a computer controlling two axes can do the job of keeping the

object in view, and in the same apparent rotational state.

Figure 8: Machining flat surfaces on the lathe



So, mine had to be Equatorial. The geometry was fairly straight forward, and as it was going mainly to be used at Carey Gully, all I needed was an arrangement that pointed the main axis

Figure 10: Boring a RA bearing housing

(Right Ascension or RA) up at the same angle as our latitude. This takes me back to the pattern making, Here I cast in aluminium two angled brackets to support the RA axle. Without a mill at that time, this involved mount faces and bores all to be machined on the lathe. Hopefully, the



pictures will be self-evident regarding the set ups.

To drive the RA axis to keep objects in view required a variable speed drive. To look at the Moon for any length of time requires a different speed of rotation to that for stars. Having some helpful people in the instrument lab at work enabled me to get hold of a synchronous electric motor/gearbox, which would run at the same speed irrespective of load provided the frequency is unchanged. Therefore, all I needed was a variable frequency AC supply. In one of the electronics magazines of the time, I came across a kit to build a constant frequency power supply. In this, there was an adjustable component with which to set the desired frequency.

So, I built this kit, and put the adjustable component on the front panel so that I could twiddle it. It was necessary to calculate the gearing required to get from motor revs to Sidereal (approx. 1 rev/day) speed. This done, a motor + gearbox was “found” that got somewhere close. The final speed reduction was via a steel belt (an old tape measure), a pulley on the geared motor, and a large pulley on the RA axle made from an old brake disk from my very first car.

The tape measure belt allowed me to return the RA back after a night’s viewing without driving it back with the motor simply by slackening the tension and rotating the RA by hand.

For the other axis Declination (Dec), a geared 12V motor was used to correct any drift, and it used a spring-loaded plate clutch arrangement that made manual pointing to be done easily. Because of the nature of the Equatorial drive, it is desirable to be able to rotate the OTA in its mount in order to get the eyepiece in a comfortable position. I chose to make a hexagonal collar with ball

Figure 11: Almost complete at the SASMEE Nov84 Exhibition



bearing races that I could loosen to achieve the above. I didn't have the means of bending 2" square tube into a ring with a bore of around 14". It was a bit rough and ready. In making the hexagon out of 2" square tube bits, I chose to braze it all together. Unfortunately, it was a cold winters day and the shed was closed up. I learned about zinc fever that night!

All was completed in late 1985 just in time to see Halley on its way in. When Halley was about a month out from the predicted best, I took some test photos at home. I was taking the rig to Quorn for dark sky, and, for what was predicted to be a great celestial show. I needed to see if my exposures were Ok. No instant views back then.

Figure 13: The test shot of Halley's



for some more. Eventually, he sold over 300 copies!

My son Peter, and the next-door kids had (with special parental approval – meaning “don't wake us up!”) a grand view of a total lunar eclipse through the telescope very early one morning. However, after the initial excitement,

The home shots came out well. The great celestial show was a fizzer, and a great disappointment to the many who travelled to the Flinders to see it. However, a friend of mine in Quorn who was a bit into astronomy, also had a small souvenir

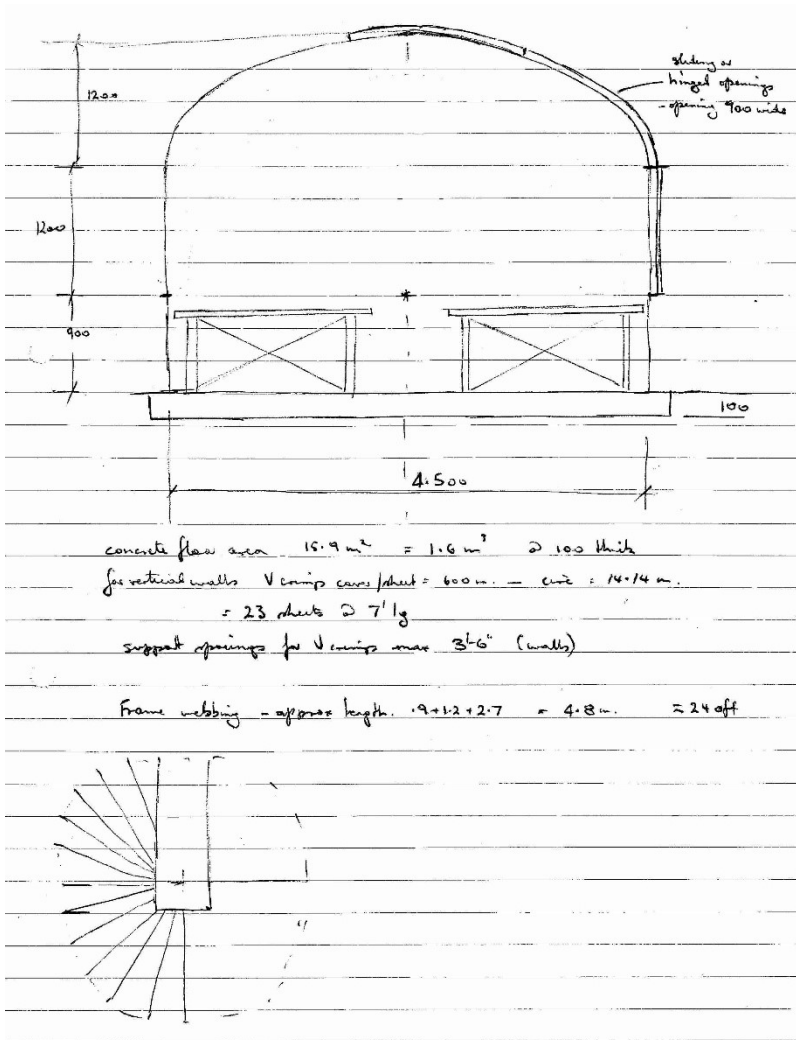
Figure 12: Peter and a ladder

shop asked me if I could get 20 prints of my test shot for him to sell. I did this, and he asked



working in the day time, heavy involvement at PRRPS, clouds etc all contributed to a declining use of the telescope. The main issues with the rig were mass and volume. It needed my trailer to transport it. The length of the OTA also meant that when viewing near the zenith, the observer had to stand on a ladder!

An observatory building with a viewing platform was considered, but was never got around to.



Was it worth all the effort? - possibly not (and that could apply to a lot of model engineering too), but I still have it, and if current projects allow, it just might be possible to bring it to life again on a modern mount. That might mean that only the optical parts get a Guernsey.

Almost no-one builds their own telescopes these days, as there are quite good setups available at reasonable costs. The age of computer control and digital cameras, and image processing software has revolutionised the whole astro hobby scene.

You can now buy a telescope (for around 10 or so fills of your car's tank) that has inbuilt, a camera, and enough smarts that it can work out where it is, and point itself to whatever bit of sky you want, take lots of images of the object and process it into a magical final image. With my 12 inch, I was able to look at the core of Halley, and see with my own eye, and original photons, that it was moving across the star field. I also managed a 20 minute manually guided photo.

Which is best being up to the individual? Answer - I am now into the rabbit hole of modern Tech!



Figure 14: Halley's Comet (the fuzzy thing)

TECHNICAL MATTERS

Axle Load Weighbridge for SASMEE

Allan Wallace

SASMEE now has a facility to accurately measure axle loads on any 5" gauge or 7.25" gauge rolling stock, thanks to a new installation in the 7.25" gauge steaming up bay. It is as easy to use as a bathroom scale, and it uses very similar technology.



Figure 15 5"g Black Five on the weighbridge

The load sensors are four planar load cells, each of which is a low-profile dual beam fitted with a full strain gauge bridge (4 strain gauges per load cell). Strain gauges work on the principle that when a fine wire is stretched, its electrical resistance increases. We have 16 of these tiny gauges connected to a sensitive amplifier that outputs a voltage corresponding to the total load on the weighbridge. An electronic module converts the signal into a digital number for display.

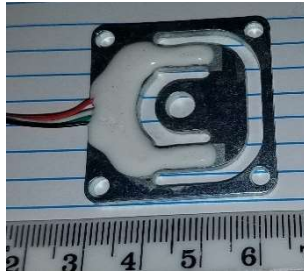


Figure 16 One of the four loadcells. The four strain gauges are embedded under the epoxy coating on the two horizontal beams.



Figure 17 The underside of the sensor unit



Figure 18 The electronics box and readout

The load cells are carefully designed such that they are insensitive to any force components that are not precisely perpendicular to the plate. The four cells are located under an “H” frame and wired so that the output signal is not affected if the applied load is off centre. This why it works for both 5” gauge and 7.25” gauge.

Full technical details and operating instructions are available on SASMEE’s members’ website.

What’s it used for?

In full size railways track managers impose strict limits on the maximum axle load to be applied to their track, for mechanical reasons of achieving an adequate track life. Such limits do not apply to our miniature operation, but there are several other uses. It is useful to know the gross mass of a large locomotive for comparison with a bridge loading limit, or when planning to lift it for maintenance or transport.

Another application is to help setting up the suspension springing on a locomotive, to adjust the distribution of the weight across the axles. A common example is a 3-axle locomotive (0-6-0) where the middle axle is close to the centre of mass of the locomotive. In this case, most of the weight could be carried by the middle axle and it is not obvious that the leading and trailing axles might be very lightly loaded, which can lead to derailments. With the help of the axle load weighbridge, the springing can be adjusted to apply more load on the outer axles by reducing the load on the middle axle.

Builders of miniature locomotives should be aware that we do not have to strive for equal loading on all wheels of the same diameter (unlike full size). In principle, that aim is not always feasible unless one also adjusts the weight distribution on the locomotive frames. As the 0-6-0 example illustrates, it may be more important to increase the load on the outer wheelsets which are necessary for guiding the locomotive. The common 4-6-0 or 2-6-0 arrangements pose a trade-off because one desires to maximise the load on the driving wheels for reasons of tractive effort, but

one needs to maintain sufficient load on the leading axle(s) for reasons of following the track.

Finally, the axle load weighbridge can help diagnose suspension movement problems, for example axleboxes with excessive travel friction or even stuck. Some technique might be necessary, such as running the locomotive over a short hump or dip. Our weighbridge will permit the sensor to be raised or lowered a few mm from rail height to undertake these kinds of tests.

Thanks to all who supported and helped with this project, it is a valuable and instructive facility for the club to have. You are welcome to stand on it to check your own weight (limit 200kg, but it will survive 400 kg)!

CLUB ACTIVITIES

Christmas Windup.

Christmas come twice to SASMEE this year. On the Public Run held on Sunday 3rd December, SASMEE was visited by Father Christmas and some of his elves. The elves, being quite shy, went into hiding and the visiting children had to find them. This added a lot of spark to the atmosphere. A lot of thanks to Rachel, Rohan and all the elf helpers that put in and made this happen.





Elf in hiding

And Baldwin Bear got into the act.





Even the Garden Railway joined in.

It is a SASMEE tradition to not open for the public on the last run day of the year and hold a members' only event. This year it was on the 16th



December and commenced about 4:00 pm, with dinner at 6:00. While not quite a tradition (yet), the dinner was a roast. For several years the Club has had access to a CFS gas BBQ roaster.



Mary, Bryan and Alan preparing dinner.

The evening ran late – also a tradition.



Club Run Day.

The second Tuesday of January another tradition is to hold a club run day instead of a General Meeting. This year it was held on Tuesday 9th January. Commencing at 4:00 pm and running until late. This year there was a celebration of the Club House being seventy-five years old.

Buy and Sell

This has now been shifted to the SASMEE Website. Under the ABOUT SASMEE Tab. No password required.

If you have anything in the workshop and model engineering area that you would like to buy or sell, please let me know. Keep monitoring this site. There is a lot of good stuff.

Up and Running

Since the last Bulletin, Public Run Days were held on the 3rd of December, 7th and 20th January and the 17th February. The scheduled run for the 4th February was cancelled due to hot weather. The 20th January and 17th February were evening runs. There was the Club

Christmas function on Saturday 16th December and the Club play night on Tuesday 9th January.

Here are some selected details.

The Run Day on the 18th November had the following activities:

5", 7 ¼"

- | | |
|---------|--|
| • U33 | Grant Campbell, Ainsley Cuthbertson. |
| • Sooty | Rohan Garrard/Ashley Roocroft, Jackson Hefford, guard. |

On the 3 ½", 5" track were:

- | | |
|--------------|------------------|
| • NSU 57 | Kingsley Martin. |
| • Heisler | Alan Thomas. |
| • Smiley | John Mere. |
| • Apprentice | Jake Bott. |

On the pond were:

- | | |
|-----------------------------|-----------------|
| • Cranborne | Bob Smith. |
| • Stiletto, Vickers Vedette | Michael Offler. |
| • Stern wheel barge | Malcolm Ambler |
| • Work boat, Fast Ferry | John Clayfield. |
| • HMS Grenadier | Alan Saunders. |
| • Raeleen M | Michael Priest. |

On the Garden Railway

- | | |
|-------------------|------------------|
| • Climax | Enzo Greco. |
| • Short Line # 11 | Rachel Brougham. |

On the stations were Michael Taliangis, Toni Offler, Rachel brougham, Henry O'Neill.

David Bryker attended the Steam House.

In the Canteen were Mary Homann, Di Watkin and Bryan Homann.

On the gate were John Harris and Ian Thomas.

Max Shuard was the Safety Officer.

The Run Day on 3rd December had the following contributions:

5" 7 ¼"

- | | |
|---------|---|
| • Sooty | Cameron Dicker, Jackson Hefford, guard. |
|---------|---|

- U33

Matthew Longman.

On the 3 ½" 5" track were:

- | | |
|----------------|------------------|
| • NSU57 | Kingsley Mertin. |
| • Black 5 | Allan Wallace |
| • Apprentice | John Bellew. |
| • Smiley | Grant Campbell. |
| • Pennsylvania | John Mere. |

Some of the boats on the pond were:

- | | |
|------------------|-----------------|
| • Pride of Perth | Bob Smith. |
| • Cabin Cruiser | Malcolm Ambler. |
| • SS Sudan | John Clayfield. |
| • Salina | Rob Ball. |

On the Garden Railway

- | | |
|---------------------|------------------|
| • Christmas Special | Rachel Brougham. |
|---------------------|------------------|

On the stations were Michael Taliangis, Toni Offler, Henry O'Neill, Daniel O'Neill.

In the Canteen were Mary Homann, Di Watkin, Max Shuard.

On the gate was David Hawkins and Trevor Morcom.

Bernie Dickinson and Michael Moyse attended the Steam House.

Safety Officer was Max Shuard.

There was also a special guest appearance – Father Christmas – Rohan Garrard.

The Run Day on the 7th January had the following activities:

5" 7 ¼"

- | | |
|---------|--------------------------------------|
| • Sooty | Rohan Garrard/Guard Jackson Hefford. |
| • 351 | Ashley Roocroft. |

On the 3 ½" 5" track were:

- | | |
|----------------------|------------------|
| • NSU 57 | Kingsley Martin. |
| • Apprentice | Jake Bott. |
| • Great Western 1551 | Allan Wallace. |

- 357
- Heisler
- 702
- Clishay

Simon Lindsay.
Alan Thomas.
Bob Smith.
John Llyas.

On the pond were:

- Skylight,
- Tug

Michael Offler
Michael Priest

On the Garden Railway

- No operations.

On the stations were Michael Taliangis, Toni Offler, John Brougham and Robyn Hefford.

Michael Moyse and David Bryker attended the Steam House.

In the Canteen were Mary Homann, Di Watkin and Bryan Homann.

On the gate was David Hawkins and Trevor Morcom.

Max Shuard was the Safety Officer.

Meetings

All meetings were held in the club rooms on the second Tuesday of each month. After the November General Meeting, there was the Annual Auction. There was no General Meeting held in January and after the February General Meeting discussions were held on options for the new workshop.

Efforts are being made to provide interesting and topical talks after each General Meeting. If you have any ideas, requests (or better still!) offers, please let me know. Ed.

SASMEE PROJECTS

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Workshop

The drawings have been signed off by the Structural Engineer and submitted to Plan SA for Building Approval. This is required for Development Approval which must be obtained before building can commence.

Expression of interest documents have been forwarded to seven companies. Four companies expressed an interest and tender documents were forwarded to them on 27th November.

Tenders closed on 25th January 2024. Three tenders were received and all were well above the funds available. Negotiations have commenced with two of the tenderers to understand the costs of individual items with the objective of reducing to scope and price to come within the allocated funds.

The retaining wall is now complete and the top end of the yard has been cleared. A top layer of dolomite is required to complete the car park area. Discussions are underway to determine the best layout for this area.

A lot of work has been undertaken in relocating services. Of particular importance has been the rewiring of Fort Knox. Water and compressed air are also being relocated. A temporary switchboard has been erected, taking all of the electrical connections to other facilities out of the existing workshop.

U33.

The overhaul of U33 has been completed and testing finished. The locomotive is now fully operational. Revised operating instructions have been issued. Please make yourself familiar with these before operating the locomotive. The shell still has to be painted.

Hunslet

Work on the engine and drive chain are complete. Work on the connecting rods and bearings is finished. The locomotive still requires work on the braking system and neutral locator. The locomotive is available for limited operations.

Trackwork

Planning for work on the 7 ¼ track has begun. This will be a significant project and will need input from members to undertake the work.



Born to Cora & William Beal at Kings Park SA on the 6th May 1937, the day the “Hindenburg” blew up. John was proud of this fact and would like to tell anyone who would listen.

John had an older brother Bill and a younger sister Cora. Although all were musical, John could literally play any instrument put into his hands, he would get the feel of the instrument and very quickly master it. He was also fascinated by anything mechanical.

At 15 he started an apprenticeship with (then) Weapons Research Establishment (WRE) at Salisbury SA as a Fitter & Turner. He finished his apprenticeship at 19 and WRE kept him on.

As part and parcel of working with WRE being adjacent to the Air Force base, he joined the Air Force Reserves at 19 (24th squadron), doing every second weekend and a two-week stint at camp once a year.

John was an avid train enthusiast and was a member of model engineer clubs at Penfield SA and SASMEE (Millswood SA). He loved to travel and would go to Easter train conventions all over Australia, usually with family and Barbara and David who were just as much train lovers as he was.

John took several overseas holidays, to Europe, Hong Kong, Ireland, New Zealand, United Kingdom, and North America, with Barbara and returned with numerous photographs and postcards as he was a skilled photographer.

John was a member of the Theatre Organ Society of Australia (SA Division). He loved to play and listen to the beautiful old organ at the Capri Cinema on Goodwood Road as well as their grand piano.

John also had a band called “The Old Stylers” in which he played the piano. This band played at ballroom dances that Barbara ran as well as the country dance tours that Barbara organised at various times of the year. John also played alongside his friend Rex Pfeiffer for Brian Townsend who had a square dance band. This band would be booked for various places in Adelaide and country areas and people who did not know how to square dance could learn.

Family was very important to him and he was joyous when Tricia and Taffy made him a grandfather, then in time, a great grandfather.

After Barbara passed on in July last year, David took on a more important role, making sure that he had his medications and dinner, while Tricia stepped in taking him to his appointments and along with Taffy, taking him to his favourite places like Vilis Café at Mile End, the Capri Cinema and quiz nights with Anne Wills (Willsy) at firstly the “Castle Tavern”, then the “Maid of Auckland” hotel, both in Edwardstown SA.

In the early 1980's John had obtained through his work some cheap flights with Ansett to Kangaroo Island and he took me and Barbara there for a day trip, which we all enjoyed; he took a photograph of me at Kelly Hill caves and Remarkable Rocks. One of the best things about this outing was the vending machine at the KI airport. All three of us put our money in, got a can of drink and change and then it refunded us the money we put in. One day in the late 1980's, WRE had an open day for their workers families to see what they did. As John and I could not go on this particular day, a few days later he brought home a keyring for me. It was made at WRE from an empty .308 bullet cartridge.

John used to take me to Port Vincent SA with another model engineer friend (also sometimes with Barbara) to run their locomotives on the track over there on New Years Day. We stayed for a few days fishing while we were there. He taught me to fish just as well as my dad has done. We would also go to a local Adelaide jetty to fish at Easter time if we were not going to a train convention.

John invited me to join the model engineers at SASMEE and Penfield (he himself having joined Penfield in approximately 1970 and SASMEE in 1975) and was eager to show me how to drive his locomotives. In the 1985-86 SASMEE club year he was elected Treasurer, a position he held for 11 consecutive terms and in the 2004/05 year he was elected Minute-Secretary, a position he held for 10 consecutive terms until 2015/16 when I took over. In 2017, John was very surprised when he was awarded Life Membership of SASMEE, saying "It was an honour to receive such an award". He did ask who had nominated him for this and I had to admit that it was myself.

John did like music and if he was not playing an instrument, he would put on a 78 record or a CD. He liked Al Bowley, George Formby, Vera Lynn, Jimmy Rogers, Hank Snow and Andre Rieu to name some. One night we were at my grandmothers (Hamley Bridge SA) and John was playing their piano, Uncle Frank on a keyboard and I was playing a recorder on tunes that I knew. Suddenly John stopped and picked up my spare recorder and played it. He had never played this instrument before!

John had an interest in vintage cars in the 1980's 1990's and one night while he was playing for Brian Townsend's band, he bought a \$5.0 raffle

ticket to help the Birdwood SA Country Fire Service. Some weeks later we were mourning the passing of another model engineer friend when the CFS telephoned us on a Friday night to say that he has won the first prize and that they would be down the next day to deliver it. John didn't want to believe this call but said I will wait and see. 11.30 am the next day it arrived, a 1927/28 Dodge Brothers "Flying Four" Tourer, 4-cylinder car. As a result of winning this, he joined the Veteran & Vintage Sports Car Club of SA for a few years and he met the gentleman who restored this car. John, Barbara and myself, along with others sometimes, did several Bay to Birdwood rallies in this vehicle along with Adelaide's

version of the London to Brighton as well as the Glenelg SA and Port Adelaide SA Christmas pageants! Some years later he needed money and sold this car to a collector in Alice Springs NT for \$10,000.00. Later in his life, John would like to watch the TV religious program on Sunday mornings, singing along with the choir to the hymns that he knew.



5 Star Dining at the Ritz Canteen



Congratulation to Mary and Bryan Homann for their management of the Canteen.

The Canteen was inspected by the Environmental Health Officer in November and the rating received was 5 out of 5!

A lot of work goes into running the Canteen. Sourcing and purchasing supplies, keeping stock up to date and of course serving – the bit we all see. The Canteen is a tremendous asset for SASMEE.

Insurance Conditions

Each February SASMEE must renew its Public Liability insurance. It is a good policy, but imposes requirements upon SASMEE. Below is a copy of these conditions.

“General Conditions applicable to all Miniature Railway Activities

Where Your Business, as stated in the Schedule, includes Miniature Railways or other similar activities, the following shall apply:

1) You must:-

- a) fully comply with the relevant Australian Workplace Health and Safety regulations, Australian Standards and Codes of Practices in relation to Amusement Rides and Devices, Australian Association of Livesteamers Standards and Codes of Practices, 7 ¼ Gauge Standards Recommended by AAMR,
- b) ensure all locomotives, rolling stock, trains, tracks, lineside fixtures and the like *are* regularly checked and maintained in a safe working condition with documented records of checks,
- c) prior to the commencement of public running conduct a daily check of all operating trains, tracks and lineside fixtures with documented records of checks,
- d) provide a basic safety instruction for any rider prior to them entering the ride,
- e) ensure that any rider, driver, guard, instructor, volunteer or official who is intoxicated to not be allowed to partake in an activity including riding a train.

2) for the safety of Visitors you must:-

- a) provide a basic safety instruction when entering the site,
- b) provide a designated public area for visitors,
- c) ensure that any visitor who is allowed outside of designated public area is supervised at all times.”

The Missing Presidents of SASMEE!

Bryan Homann

Further to the article in the May 2023 Bulletin, some further information has come to light.

The Pacific Model Engineer magazine listed Mr V Messer as the President in January 1931.

On the basis that the duration in office went from May to May each year, we can say with reasonable confidence that the Presidents were as follows:

928 – 1929 V Messer. (On the Presidents' board)
1929 – 1930 W J Wolfe
5/1930 – 11/1930 A White, 11/1930 – 5/1931 V Messer
1931 – 1932 Not Known
1932 – 1933 Not Known
1933 – 1934 C Miller (On the Presidents' board)

It is possible that V Messer served as President for one or both the missing years. It is also possible that C. Miller also served for at least one of those years. And there is an outside chance that someone not listed also served!

New Members

Since the last Bulletin SASMEE welcomes these new members:

James Rault December 2023

Grant Campbell December 2023

SASMEE has developed a "Welcome Pack" for new members and these will be progressively distributed.

REMINDERS!!

Food Safety Course

There is a very good food safety training course online at:
<https://dofoodsafely.health.vic.gov.au/index.php/en/>

Anyone involved with the Canteen is encouraged to undertake this course. It covers the basics and gives good advice on food handling for public areas.

Working with Children

And for those who still haven't undertaken their "Working with Children" clearances, these are still necessary, so please get on the case. You will soon receive some explanatory notes on this issue. It is vital SASMEE has up to date information.

Sign In Requirements

It is a requirement to sign the attendance book whenever you are on site at SASMEE. This is an important requirement of the SASMEE insurance and failing to sign in may mean you are not covered in the event of an incident or accident.

Note that you are now asked to enter the time of arrival and the time of leaving.

So please remember to sign in whenever you are at the park, even if there for only a short time.

First Aid Kits

The main first aid kit has been relocated from the Canteen to the Club Meeting room. It is situated adjacent to the defibrillator, with a small additional container with minor repair items such as Band-Aids.

There is a secondary first aid kit located in the workshop.

If you use either first aid kit, please enter a note in the log book outside the clubhouse and email the secretary. It is important these kits are kept up to date and replenished.